Center for Hierarchical Waste Form Materials (CHWM) Hans-Conrad zur Loye (University of South Carolina)

CHWM Mission: To combine experiment and modeling to develop the chemistry and structure motifs needed to create hierarchical materials that effectively immobilize nuclear waste in persistent architectures.

Metal-Organic Frameworks

Alloying Mesoporous Materials

Crosslinking Nuclear Waste

Organic Salt-Lattice Covalent Framework

Salt-Inclusion Compounds

Multi-Metallic Nanoparticles

http://CHWM.sc.edu

RESEARCH PLAN

Fundamental knowledge necessary to create new materials to safely sequester nuclear waste will be developed through the computationally-informed design of novel hierarchical materials, generating innovative chemical approaches and structure motifs through the use of advanced synthesis and characterization methods.











